The California Hub & Spoke System
Medication-Assisted Treatment (MAT) Expansion Project

*Integrating MAT into Primary Care*
*The Santa Cruz Experience*

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What have we learned from the opioid crisis?

The Opioid Epidemic in America
The Research Behind Understanding, Preventing and Treating Addiction

Opioid Misuse & Addiction in the United States

Data from the U.S. National Institute on Drug Abuse indicates:

- Roughly 21-29% of patients prescribed opioids for chronic pain misuse them
- Between 8-12% develop an opioid use disorder
- An estimated 4-6% who misuse prescription opioids transition to heroin
- Approximately 80% of people who use heroin first misused prescription opioids
9 out of 10 people with a substance use disorder started using alcohol and marijuana before they turned 18.
Nearly half of young people who use heroin report abusing prescription pain killers before starting heroin.

Source: National Survey on Drug Use and Health. 2011-2013
The number of high school students reporting heroin use has doubled in the past 10 years.

Source: Youth Risk Behavior Surveillance System (YRBS) – Centers for Disease Control and Prevention (CDC)
Substance Use Disorder is a Developmental Disease: It Starts Early

- Child (<12) 1.5%
- Teen (12-17) 67%
- Young Adult (18-25) 26%
- Adult (>25) 5.5%
Basic Science Tells Us that Adolescents’ Brains Are Still Developing...
MRI Scans of Healthy Children and Teens Over Time: Maturation, development and meaningful connectedness of brain signaling

When Reading Emotions...
Adults Rely More on the *Frontal Cortex*
While Teens Rely More on the *Amygdala*
What does this mean?

Because the *frontal cortex* is still developing during childhood, adolescents rely on a part of the brain called the *amygdala* to make decisions and solve problems more than adults do.

The *amygdala* is associated more with emotions, impulses, aggression and instinctive behavior.

The frontal cortex is associated more with impulse control, decision making, and moderating social behavior.

*Adolescents React Differently than Adults to Drug Use*
What does this mean?

- PHYSICAL, SENSORY-CONNECTED activities may be preferred over complex, intellectually demanding ones.
- Activities with HIGH EXCITEMENT and require LOW EFFORT [video games, sports, sex, drugs] are often preferred.
- Poor self control and emotion management can lead to OVERREACTION and EXAGGERATED EXPRESSING of emotions.
Persons with SUDs are not a generic group of people who simply use/drink in excess. The old paradigm of *addict or not an addict* is unsupported by research.
Based on clinical data and experience, it’s time to rethink the “substance abuser” or “addict” as well as “addictions treatment” in general.

Which person below represents those with a greater frequency of opioid use disorders?

(About 20%)

(About 80%)

Based on newer research, Substance Use Disorder is now seen along a continuum of use from mild to moderate to severe and chronically relapsing. Severity type is important for individualized and meaningful treatment planning.

**Diagnostic and Statistical Manual of Mental Disorders (DSM-5)**

- Substance use disorder
  - Continuum from mild to severe
- Dependence
  - Can occur with or without a physical component
- DSM-5 criteria for substance use disorder
  - Severity determined by the number of criteria a person meets
    - 2–3 criteria—mild disorder
    - 4–5 criteria—moderate disorder
    - 6 or more criteria—severe disorder
DSM-5: 11 Diagnostic Symptoms of SUD

- Excessive amounts used
  - Excessive time spent using/obtaining

- Craving or urges to use
  - Unsuccessful attempts to cut down

- Tolerance
  - Withdrawal

- Hazardous use despite
  - Health problems
  - Missed obligations
  - Interference with activities
  - Personal problems
The 4C’s

1. C = Control of use (lack of)
2. C = Craving - obsessions that drive continued use
3. C = Compulsion to use
4. C = Continued use despite negative consequences

Koob, G. Scripps. 2014
What are the evidence-based treatments for SUD?

**Behavioral**
- Motivational Interviewing/Brief Intervention
- Contingency Management
- Cognitive-Behavioral Coping Skills Training
- Couples and Family Counseling
- 12 Step Facilitation Therapy (12 step meetings can be important peer recovery support but themselves are not tx)
- Screening, Brief Intervention and Referral to Treatment (SBIRT)

**Medication-Assisted Treatment** (coupled with behavioral treatment)
- Opiates: Methadone, buprenorphine, naltrexone, naloxone (overdose prevention)
- Alcohol: Naltrexone, nalmefene, disulfiram, acamprosate, odansetron, topiramate
- Nicotine: Nicotine replacement (gum, patches, spray), Zyban, Chantix
- Cannabis: CBD cannabinoid replacement therapy, Gabapentin (off label)
- Stimulants: None to date (2 in the pipeline – Suboxone analogue, Ibudilast)
- Naloxone (Narcan) for Opioid Overdose Prevention
Most addiction treatment programs are designed for the severe chronically relapsing patient, not for the high-risk mild to moderate use larger population.

Persons with mild to moderate OUD are generally not interested in specialty addiction treatment programs. **Why?**
**Stigma!** As long as specialty care programs are the only places providing SUD treatment, most people with mild to moderate OUD will not receive treatment.
If the majority of persons with some level of substance use disorders are not in or interested in specialty addictions treatment. . .

Where Are They??????
BEST PRACTICE TREATMENTS FOR SUD

• Treatment for SUD requires as many settings as possible, not just specialty addictions treatment programs
• Treatment type based on severity
  • Medications available for opioid use disorders
  • Psychosocial treatments effective for many patients
  • Peer-support groups are beneficial adjuncts
• For patients who are in early recovery or who are not ready to stop substance use, education and about harm reduction is a good starting point to initiate behavioral change

The Santa Cruz Experience: 

**The Need for Treatment**

If we apply the 10.1% SAMHSA population-based estimates to Santa Cruz County with a population of 274,673 people (US Census, 2016), there are **27,742** persons above 12 years of age who meet the diagnostic criteria for **substance use disorders**.

From NSDUH, 4.1% of people aged 12 or older misuse opioids, including prescription pain relievers and heroin. For Santa Cruz County, that means **11,261 people** meet the DSM-5 diagnostic criteria for **opioid use disorder**.
A solution to deal with the disparity of treatment access

Called the **Central Coast Recovery Options** Program, it’s a way to address the local opioid crisis by:

- increasing access to treatment by including primary care medicine;
- increasing the numbers of buprenorphine prescribers;
- reducing unmet treatment need;
- reducing opioid overdose deaths by expanding naloxone (Narcan) training and distribution of overdose prevention kits.
The Central Coast Recovery Options uses the “Hub and Spoke” Model

Opioid Treatment Programs (OTPs) are the *Hubs*, and eligible physicians who can prescribe buprenorphine are the *Spokes* and together, they work to treat patients with OUD.

The goal of the MAT expansion project is to increase access to treatment by increasing the number of buprenorphine prescribers.
What do the Hubs do?

- A *Hub* provides care to complex patients needing daily contact.
- Hubs provide support to the Spokes when they need clinical or programmatic advice and technical assistance or training.
- All Hubs and Spokes must be a Medi-Cal provider to help sustain services.
What do the Spokes do?

- A *Spoke* is comprised of at least one eligible prescriber. Could be a practice or a healthcare organization.
- Spokes provide ongoing care for patients with milder OUD (managing both induction and maintenance) and for stable patients that transferred from a Hub.
- Patients can move between the Hub and Spoke based on clinical severity and treatment need.
The Santa Cruz Experience: Participating Spokes

North Santa Cruz County:

- **Santa Cruz Community Health Centers (FQHC):** Provides medical and behavioral health services to low income individuals and families.
- **Sutter Health:** Medical Clinic with Pain Medicine and some behavioral health. Dominican Hospital *Transitions* Program.
- **Encompass Community Services:** Community based non-profit providing “Mindfulness MAT” in residential and outpatient treatment settings.
- **County of Santa Cruz Health Services Agency:** Provides some MAT services to homeless persons with OUD.
- **Cal State University Monterey Bay:** Provides peer recovery support for chronic pain patients with OUD.
South Santa Cruz County:

- **Salud Para La Gente (FQHC):** Provides comprehensive primary health care and behavioral health services.
- **Clinica Del Valle:** Primary health care, family medicine and behavioral health services.
- **Sutter Health:** Medical Clinic with Pain Medicine and some behavioral health.
- **Plazita Medical Clinic:** Family practice and internal medicine clinic. Some of the MDs have MAT experiences but need to expand.
- **County of Santa Cruz Health Services Agency:** Provides some MAT services to homeless persons with OUD.
The Santa Cruz Experience: Participating Spokes

Monterey County:

- **Community Hospital of the Monterey Peninsula:** Provides comprehensive health care and behavioral health services including addiction medicine.

- **Natividad Medical Center** in Salinas. This safety-net teaching hospital also provides rotations in community medicine and addiction medicine at Janus of Santa Cruz. Janus also provides training to medical staff and resident on aspects of substance use disorder and related health problems.

- **County of Monterey:** Behavioral Health Services - Substance Use Disorders Division
Benefits of becoming a Spoke

- **Bi-directional referrals** from Spokes and Hub on behalf of the patient and based on severity and need
- Support for becoming licensed to prescribe OUD medications
- Regional learning collaborative with in-person skills training and case-based learning
- *Warm line* expert consultation (*curbside* consults) with UCSF, UCLA, and other institutions
- Availability of scheduled *on-site counseling services*
- **TA and training** on the management of patients with OUD
- **MAT Advisory Group** for prescribers. Peer mentoring with other MDs.
- **CME opportunities** in MAT and Addiction Medicine
Lessons Learned

For MAT, there are generally 3 cohorts of physicians. Those who were . . .
1) Actively X licensed and prescribing;
2) X licensed but not prescribing;
3) Not X licensed

Each cohort has different challenges. Don’t assume Docs want to screen for OUD in their patients and do MAT! Many do not!

Physicians dislike screening for something they are unsure about especially when the screen is positive.

Bi-directional referrals from hub and spokes is still a work in progress.
More Lessons Learned

- Persistent myths about buprenorphine treatment serve as barriers. These include:
  - misconceptions that MAT is more dangerous than other health interventions
  - MAT merely replaces one addiction with another
  - MAT delivery is burdensome and time-consuming for PCPs
  - abstinence-based treatment is more effective for treating addiction, and
  - physicians should simply stop prescribing so many opioids to help curb the epidemic.

- MAT physicians can experience stigma similar to people struggling with OUD, and few physicians willingly subject themselves to criticism by peers, media, and scrutiny by law enforcement (i.e. DEA).
More Lessons Learned

• Some physicians did not want to be known as the “go to doc” for referrals of addicted patients from their colleagues.

• Physicians considering prescribing buprenorphine often are unsure about the course of the illness and clinical features of medication induction, maintenance and the many “what ifs”.

• Need assistance/support available including curbside consults and referrals for complex patients where buprenorphine was ineffective
What did work well with integrating MAT into primary care

• **Openly ask.** Asking physicians considering becoming a Spoke what they and/or their clinic need most to feel comfortable screening and prescribing. Not “bringing” a program to their clinic! Surprised at the responses.

• **MAT Peer Support.** Inviting physicians to the MAT Advisory Group to interact with other physicians with experience prescribing buprenorphine.

• **Waiver training sponsorship.** Helping interested physicians to obtain their license by sponsoring the costs or coordinating their training with authorized agencies.
What worked well with integrating MAT into primary care

• **Support and Tech Assist.** Fast and easy access for consultations about prescribing, induction, maintenance and follow up concerns for OUD patients.

• **Opioid and Suboxone Failure:** Early recognition of when opioids or Suboxone not working well and how to refer complex patients to the Hub.

• **On-site SUD therapists/counselors.** Physicians want to do medicine not counseling and certainly not addiction counseling. Many requested for counseling services on site for their Suboxone patients and warm-handoffs.

• **Connected to Other MDs.** Access to a larger base of waivered providers for learning, teaching and connecting.

• **Peer pain coaching.** Peer-based support groups for chronic pains patients with OUD. Services held on-site.
What worked well with integrating MAT into primary care

- **Talking to patients.** Talking about OUD with patients is not something MDs are practiced. Helping MAT physicians to start the discussion with their patients, based on health care goals and screening results, is an important practice skill to have.

- **Harm reduction in primary care.** Expecting abstinence after Suboxone induction is not realistic. As with diabetes, hypertension and asthma, learning to coach patients for longer periods of symptoms-free lifestyle is more the goal in chronic illness care.

What’s Next for MAT Expansion in Santa Cruz County?

- Bringing MAT to ED and Urgent Care
- Expanding to San Benito and Monterey Counties
- An Addiction Medicine Rotation and Resident Training program at Natividad Medical Center in Salinas
- Addition of an NTP in Monterey County!
For more information on community prevention, evidence-based treatments for adults and youth, visit

**NIDA Public Information:**

[www.drugabuse.gov](http://www.drugabuse.gov)
Thank you!

Be sure and visit the Janus website at:

www.janussc.org